

1) The amendment filed 11-15-11 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The subject matter of "a positive and non-positive manner" (page 3 line 9) of the clean version of the substitute specification filed 11-15-10. The original specification described "positive or non-positive connection" (four lines from bottom of page 4) instead of "a positive and non-positive manner". It is noted that the amended specification presented to the European examiner after the filing date of July 1, 2004 of PCT/EP04/07171 is not the original specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3) Claims 1-30, 32-35 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new

Art Unit: 1747

matter) is the subject matter of "positive and a non-positive manner" (emphasis added).

The original disclosure describes "a positive or non-positive connection" instead of "a positive and a non-positive manner".

4) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Russia 585

6) **Claims 1-4, 20-21, 23-25, 27, 35 and 37 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Russia 585 (RU 2117585).**

Russia 585 discloses a tire comprising studs wherein each stud comprises a **wear resistant head portion 5**, a **central hollow rod 3** and a **housing 1** wherein the wear resistant head portion 5 is inserted into the central hollow rod 3 and the housing 1 is intercoupled rigidly with the central hollow rod 3. The hollow rod 3 can be made of sheet metal. The housing 1 can be made of rubber, plastic or sheet metal. See Figures 1-15 and abstract. In Figures 7 and 9, the central hollow rod 3 has a flange, the wear

Art Unit: 1747

resistant head portion 5 is inserted in the central hollow rod 3 and the housing 1 is disposed on an upper section of the central hollow rod in which wear resistant head portion 5 is inserted. In both Figures 7 and 9, the wear resistant head portion 5 protrudes beyond the end of the housing 1 and the end of the central hollow rod 3. In Figure 7, the housing 1 has a flange. In Figure 9, the outer surface of the housing 1 has a spherical shape. In Figure 12, the stud comprises a "insertion element" (wear resistant head portion 5), "base body" (inner central hollow rod 3 and outer central hollow rod having upper part 19 and lower part 20) and "sleeve element" (housing 22). During a partial oral translation of Russia 585, the following information was obtained: The wear resistant head is a conical hard alloy fixed in a hollow bar. Figure 9 depicts an antiskid stud analogous to Figure 7. The body or housing is a sphere made of rubber or plastic material.

As to claim 1, the claimed anti-skid spike is anticipated by Russia 585's anti-skid stud as shown in FIGURE 12. The claimed **insertion element** reads on the wear resistant portion (5). The claimed **sleeve element** reads on the housing (22). The claimed **base body** reads on the combination of the outer hollow rod (19, 20) and the central hollow rod (3). The claimed receiver section of the base body reads on the section (19) of the "base body" in which the wear resistant portion (5) is inserted. The claimed "recess" reads on the space within center hollow rod (3) of the "base body". The claimed "flange" reads on the combination flange part (21) and flange part (4). It is noted that the space within the central hollow rod (3) is closed at the flanged end by tire material when the stud is incorporated in the tire. It is noted that Figures 6 and 15 of

Russia 585 shows the bottom opening of the central hollow rod of the Figure 4 stud being closed by tire material.

With respect to "detent", it is noted again that the claimed base body reads on the combination of the outer hollow rod and the inner hollow rod in FIGURE 12. The claimed "detent" reads on the "detent" between part (19) of the base body and part (20) of the base body.

With respect to "pressed", the subject matter of "a sleeve element (20) pressed on the receiver section (11) and having a dimension that when pressed on the receiver section (11) fixes and holds the insertion element (30) inserted into the recess (14) of the base body (10) in a positive manner and [or] a non-positive manner" reads on the structure shown in FIGURE 12 OF Russia 585. Each of the parts of Russia 585's Figure 12 stud are fixed and held together. In other words, the claims fail to require a pressure and/or dimension not inherent in Russia 585's stud. IN ANY EVENT: It would have been obvious to one of ordinary skill in the art to provide Russia 585's stud so as to satisfy the subject matter of "a sleeve element (20) pressed on the receiver section (11) and having a dimension that when pressed on the receiver section (11) fixes and holds the insertion element (30) inserted into the recess (14) of the base body (10) in a positive manner and [or] a non-positive manner" since (1) Russia 585 discloses a "base body" comprising a combination of an outer hollow rod and an inner hollow rod (FIGURE 12) wherein the outer surface of this "base body" has a step portion (detent), (2) Russia 585 shows the housing (sleeve element) being fixed and held on the outer surface of the "base body" (FIGURE 12) and the wear resistant head portion (insertion

Art Unit: 1747

element) being fixed and held within the "base body" (FIGURE 12) and (3) Russia 585 teaches that the housing and hollow rod can be intercoupled rigidly (abstract) wherein a top portion of the housing (sleeve element) may be formed against the wear resistant head portion (insertion element) as shown in Figure 8.

As to claim 2, the wear resistant head portion projects past the housing.

As to claim 3, Russia 585 describes the wear resistant head portion as being "conical".

As to claim 4, Russia 585 discloses using "hard alloy" for the wear resistant head portion, sheet metal for the hollow rod and rubber, plastic or sheet metal for the housing. A rubber, plastic or sheet metal housing (sleeve) has a wear resistance less than that of a hard alloy wear resistant head portion.

. As to claim 20, the wear resistant head portion projects past the housing.

As to claim 21, Russia describes the wear resistant head portion as being "conical".

As to claim 23, housing (sleeve element) forms a "closed ring".

As to claim 24, note the shape of the housing (sleeve element) in Figure 12. IN ANY EVENT: It would have been obvious to provide the "sleeve element" of Russia 585's stud with the claimed bezel in view of the various shapes of the housing (sleeve element) shown in Figures 7, 9 or 12.

As to claim 25, the housing (sleeve element) is rotationally symmetrical.

As to claim 27, the outer surface of the upper section (receiver section) of the "base body" is cylindrical and the inner surface of the housing (sleeve element) is cylindrical. See Figure 12.

As to claim 35, it would have been obvious to provide the stud with the claimed base body and sleeve element since Russia 585 shows that the stud may have additional flange / protruding structure as shown in the Figures (e.g. Figure 8, 14).

As to claim 37, the outer surface of the upper section (receiver section) of the "base body" is cylindrical and the inner surface of the housing (sleeve element) is cylindrical. See Figure 12.

**7) Claims 5-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russia 585 (RU 2,117,585) as applied above and in view of Mironov et al (WO 99/56976).**

As to claims 5-8 and 22, it would have been obvious to one of ordinary skill in the art to provide the material of the base body such that it has less wear resistance than that of the insertion element and the sleeve element since (1) Mironov et al, also directed to a tire stud, suggests using fiber reinforced plastic for the body 1 of a tire stud and (2) Russia 585 teaches using metal for the sleeve and hard alloy for the wear resistant head portion.

**8) Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russia 585 (RU 2,117,585) in view of Mironov et al (WO 99/56976) as applied above and further in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).**

As to claims 9 and 10, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element with a flange, (2) Russia 585's teaching to provide the base body with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

9) **Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russia 585 (RU 2,117,585) as applied above and in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).**

As to claim 26, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element with a flange, (2) Russia 585's teaching to provide the base body with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

Finnish 861/64

10) **Claims 1-4, 20-21, 23-25, 27, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585).**

Finnish 861/64 discloses a tire stud comprising a **hard tip 2** and a **base body 1 having a flange 3 and a recess 5**. See Figures 1-4. It is noted that the word "rengas" in Finnish means "tire" and that when there are case endings, "rengas" becomes --renkaa--. In Figure 1, the tire stud has an lower flange 3. In Figure 3, the tire stud has a lower flange 3 and an upper flange 3'. Finnish 861/64 does not recite a sleeve.

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the tire stud of Finnish 861/64 with a sleeve element as claimed and detent as claimed since (1) Russia 585, also directed to a tire stud, suggests providing the base body of a tire stud having a hard tip with a "sleeve" to provide increased stability and fixation in the tire (abstract, Figures 7, 9 and 12), wherein (a) Russia 585 discloses a "base body" comprising a combination of an outer hollow rod and an inner hollow rod (FIGURE 12) wherein the outer surface of this "base body" has a step portion (detent), (b) Russia 585 shows the housing (sleeve element) being fixed and held on the outer surface of the "base body" (FIGURE 12) and the wear resistant head portion (insertion element) being fixed and held within the "base body" (FIGURE 12) and (c) Russia 585 teaches that the housing and hollow rod can be intercoupled rigidly (abstract) wherein a top portion of the housing (sleeve element) may be formed against the wear resistant head portion (insertion element) as shown in Figure 8 and (2) Russia 585 suggests providing a "detent" between the lower part (20) and the upper part (19) of a "base body" in order to facilitate positioning of the "sleeve" (22). Furthermore, it would have been obvious to use a hard alloy for the hard tip 2 of the tire stud of Finnish 861/64 since Russia teaches using hard alloy for a hard tip of a tire stud.



As to claim 2, Russia shows the wear resistant head portion projecting past the housing ("sleeve element").

As to claim 3, Russia suggests forming the wear resistant head portion (hard tip) with a "conical" shape.

As to claim 4, Russia 585 discloses using "hard alloy" for the wear resistant head portion, sheet metal for the hollow rod and rubber, plastic or sheet metal for the housing. A rubber, plastic or sheet metal housing (sleeve element) has a wear resistance less than that of a hard alloy wear resistant head portion.

. As to claim 20, the wear resistant head portion projects past the housing.

As to claim 21, Russia describes the wear resistant head portion as being "conical".

As to claim 23, housing (sleeve element) suggested by Russia 585 forms a "closed ring".

As to claim 24, note the shape of the housing (sleeve element) in Figures 7, 9 or 12 of Russia 585.

As to claim 25, the housing (sleeve element) suggested by Russia 585 is rotationally symmetrical.

As to claim 27, the upper section (receiver section) of the outer surface of the base body of the tire stud of Finnish 861/64 is cylindrical, the outer surface of the upper section 19 (receiver section) of the "base body" of Russia 585 is cylindrical and the inner surface of the housing (sleeve element) of Russia 585 is cylindrical. See Figure 7, Figure 9 or Figure 12 of Russia 585.

As to claim 35, it would have been obvious to provide the stud with the claimed base body and sleeve element since Russia 585 shows that a stud may have additional flange / protruding structure as shown in the Figures (e.g. Figure 8, 14).

As to claim 37, the upper section (receiver section) of the outer surface of the base body of the tire stud of Finnish 861/64 is cylindrical, the outer surface of the upper section 19 (receiver section) of the "base body" of Russia 585 is cylindrical and the inner surface of the housing (sleeve element) of Russia 585 is cylindrical. See Figure 7, Figure 9 or Figure 12 of Russia 585.

**11) Claims 5-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585) as applied above and further in view of Mironov et al (WO 99/56976).**

As to claims 5-8 and 22, it would have been obvious to one of ordinary skill in the art to provide the material of the base body such that it has less wear resistance than that of the insertion element and the sleeve element since (1) Mironov et al, also directed to a tire stud, suggests using fiber reinforced plastic for the body 1 of a tire stud and (2) Russia 585 teaches using metal for the sleeve element and hard alloy for the wear resistant head portion.

**12) Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585) and Mironov et al (WO 99/56976) as applied above and further in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).**

As to claims 9 and 10, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element with a flange, (2) Russia 585's teaching to provide the base body with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

13) **Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Finnish 861/64 (FI 861/64) in view of Russia 585 (RU 2,117,585) as applied above and further in view of Nurmi et al (WO 91/00185) or Walrave et al (US 3,987,831).**

As to claim 26, it would have been obvious to one of ordinary skill in the provide the sleeve element with a diameter larger than the diameter of the flange of the base body in view of (1) Russia 585's teaching to provide the sleeve element with a flange, (2) Russia 585's teaching to provide the base body with a flange and (3) the suggestion from either Nurmi et al or Walrave et al to provide a stud with two flanges wherein the diameter of the upper flange near the hard tip is larger than the diameter of the lower flange.

#### Remarks

14) The substitute specification filed 11-15-10 has been approved for entry by the examiner.

Applicant's arguments filed 11-15-10 have been fully considered but they are not persuasive.

Applicant's argument that element 3 does not include a detent is not persuasive since the base body (combination of outer hollow rod and central hollow rod) in Figure 12 of Russia includes a detent. Note the detent between part 19 of the base body and part 20 of the base body.

Applicant's argument regarding "pressed" is not persuasive since each of the parts of Russia 585's Figure 12 stud are fixed and held together. In other words, the claims fail to require a pressure and/or dimension not inherent in Russia 585's stud.

Applicant's arguments regarding Finish 861/64 are not persuasive since, contrary to applicant's arguments, Russia 585 discloses the detent and pressed subject matter.

With respect to claim 5, Russia teaches using various materials for the stud and Mironov et al provides ample suggestion to use fiber reinforced plastic (relatively low hardness material) for the base body of a stud.

15) No claim is allowed.

16) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1747

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/  
Primary Examiner, Art Unit 1791

Steven D. Maki  
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